

# EXHIBIT 17

SUPERIOR COURT OF THE STATE OF CALIFORNIA  
FOR THE COUNTY OF LOS ANGELES - CENTRAL CIVIL WEST

Coordinated Proceeding	)Coordinated Case
Special Title (Rule 3.550)	)No. JCCP4674
LAOSD ASBESTOS CASES	)
_____	)LASC Case No. BC646315
	)
TINA HERFORD and	)Coordination Trial
DOUGLAS HERFORD,	)Judge:
	)Hon. Steven J.
Plaintiffs,	)Kleifield, Dept. 324
	)
vs.	)
	)
AT&T CORP., a subsidiary	)
of AT&T INC., et al.,	)
	)
Defendants.	)
_____	)

SUPERIOR COURT OF NEW JERSEY	
LAW DIVISION, MIDDLESEX COUNTY	
STEPHEN LANZO, III, and	)
KENDRA LANZO,	)
	)
Plaintiffs,	)
	)DOCKET NO.
vs.	)
	)MID-L-7385-16AS
CYPRUS AMAX MINERALS	)
COMPANY, et al.,	)
	)
Defendants.	)
_____	)

DEPOSITION OF WILLIAM E. LONGO, PhD

August 23, 2017

11555 Medlock Bridge Road, Suite 100  
Johns Creek, Georgia  
Debra R. Luther, RMR, CRR, CCR-B-881  
Atlanta Reporters, Inc.  
Georgia Certified Court Reporters  
(866) 344-0459  
www.atlanta-reporter.com

William E. Longo, Ph.D.

August 23, 2017

2 (Pages 2 to 5)

Page 2	Page 4
<p>1 APPEARANCES OF COUNSEL</p> <p>2 On behalf of the Plaintiffs</p> <p>3 Tina Herford and Douglas Herford:</p> <p>4 CHRIS PANATIER, Esq.</p> <p>5 Simon Greenstone Panatier Bartlett, PC</p> <p>6 3232 McKinney Avenue</p> <p>7 Suite 610</p> <p>8 Dallas, Texas 75204</p> <p>9 cpanatier@sbgblaw.com</p> <p>10 On behalf of the Plaintiffs</p> <p>11 Stephen Lanzo, III, and Kendra Lanzo:</p> <p>12 JOSEPH D. SATTERLEY, Esq.</p> <p>13 Kazan, McClain, Satterley &amp; Greenwood</p> <p>14 55 Harrison Street</p> <p>15 Suite 400</p> <p>16 Oakland, California 94607</p> <p>17 jsatterley@satterleylaw.com</p> <p>18 On behalf of the Defendant</p> <p>19 Johnson &amp; Johnson (Herford):</p> <p>20 ALEXANDER G. CALFO, Esq.</p> <p>21 King &amp; Spalding, LLP</p> <p>22 633 West Fifth Street</p> <p>23 Suite 1700</p> <p>24 Los Angeles, California 90071</p> <p>25 acalfo@kslaw.com</p> <p>(Appearance by telephone)</p> <p>ADAM REINKE, Esq.</p> <p>King &amp; Spalding, LLP</p> <p>1180 Peachtree Street, NE</p> <p>Atlanta, Georgia 30309-3521</p> <p>areinke@kslaw.com</p> <p>JULIA ROMANO, Esq.</p> <p>King &amp; Spalding, LLP</p> <p>633 West Fifth Street</p> <p>Suite 1700</p> <p>Los Angeles, California 90071</p> <p>jromano@kslaw.com</p> <p>(Appearance by telephone)</p>	<p>1 INDEX TO EXAMINATIONS</p> <p>2</p> <p>3 Examination Page</p> <p>4</p> <p>5 Examination by Mr. Calfo 14</p> <p>6 Examination by Mr. Benoff 125</p> <p>7 Examination by Ms. Harirchi 226</p> <p>8 Examination by Mr. Panatier 230</p> <p>9</p> <p>10 - - -</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19 (A disk(s) containing original Exhibits 1</p> <p>20 through 18 will be attached to the original</p> <p>21 transcript, the originals having been returned</p> <p>22 to Dr. Longo. Exhibits 3, 7, and 8 were not</p> <p>23 produced to the court reporter by the time of</p> <p>24 production and not attached.)</p> <p>25</p>
Page 3	Page 5
<p>1 APPEARANCES OF COUNSEL (Continued)</p> <p>2 On behalf of the Defendant</p> <p>3 Imerys (Herford):</p> <p>4 TODD B. BENOFF, Esq.</p> <p>5 Alston &amp; Bird, LLP</p> <p>6 333 South Hope Street</p> <p>7 Sixteenth Floor</p> <p>8 Los Angeles, California 90071</p> <p>9 todd.benoff@alston.com</p> <p>10 On behalf of the Defendant</p> <p>11 Shulton, Inc. (Herford):</p> <p>12 M. JAMES DEMPSEY, Esq.</p> <p>13 Cosmich, Simmons &amp; Brown, PLLC</p> <p>14 34 Millbranch Road</p> <p>15 Suite 70</p> <p>16 Hattiesburg, Mississippi 39042</p> <p>17 jimmy@cs-law.com</p> <p>18 On behalf of the Defendants</p> <p>19 Calaveras Asbestos, Ltd. (Herford):</p> <p>20 N. NIKKI HARIRCHI, Esq.</p> <p>21 Foley &amp; Mansfield, PLLP</p> <p>22 300 South Grand Avenue</p> <p>23 Suite 2800</p> <p>24 Los Angeles, California 90071</p> <p>25 nharirchi@foyleymansfield.com</p> <p>(Appearance by telephone)</p> <p>On behalf of the Defendant</p> <p>Revlon, Inc.; Yves San Laurent America,</p> <p>Bristol-Myers Squibb Company; and</p> <p>Elizabeth Arden, Inc. (Herford):</p> <p>EDWARD R. ULLOA, Esq.</p> <p>Hawkins, Parnell, Thackston &amp; Young, LLP</p> <p>445 South Figueroa Street</p> <p>Suite 3200</p> <p>Los Angeles, California 90071-1651</p> <p>eulloo@hptylaw.com</p> <p>(Appearance by telephone)</p>	<p>1 INDEX TO EXHIBITS</p> <p>2</p> <p>3 Defendant's</p> <p>4 Exhibit Description Page</p> <p>5 1 Curriculum vitae 27</p> <p>6 2 Testimony list 27</p> <p>7 3 (Not marked) 28</p> <p>8 4 Five high-resolution photographs 45</p> <p>9 5 Talc Size Distribution of Johnson &amp; 45</p> <p>10 Johnson and Valeant Shower to</p> <p>11 Shower Amphibole Positive Samples</p> <p>12 (Longo and Rigler, 8/21/2017)</p> <p>13 Project COC, chain of custody, 46</p> <p>14 purchase order, receipt,</p> <p>15 photographs</p> <p>16 7 (Not marked) 51</p> <p>17 8 (Not marked) 61</p> <p>18 9 Analysis of Johnson &amp; Johnson Baby 62</p> <p>19 Powder and Valeant Shower to Shower</p> <p>20 Talc Products for Amphibole</p> <p>21 (Tremolite) Asbestos (Longo and</p> <p>22 Rigler, 8/2/2017)</p> <p>23 10 CDs: Johnson &amp; Johnson Testing 67</p> <p>24 Binders 1 - 3</p> <p>25</p> <p>11 FDA 1973 - 1977 retesting of Lewin 69</p> <p>20 samples</p> <p>21 12 5/17/1977 Minutes of the CTFA Task 69</p> <p>22 Force on Round-Robin Testing of</p> <p>23 Consumer Talcum Products for</p> <p>24 Asbestiform Amphibole Minerals</p> <p>25</p> <p>13 Report of Results MVA 11730, 69</p> <p>24 Investigation of Italian Talc</p> <p>25 Samples for Asbestos (Compton,</p> <p>8/1/2017)</p>

Page 30	Page 32
<p>1 where I actually do deposition or trial is on behalf 2 of plaintiffs. 3 Q. Okay. And just so we -- I'm sure you 4 testified to this in the past, but can you tell us 5 what percentage of your cases that you've testified 6 in through deposition or trial are on behalf of 7 plaintiffs? 8 A. What I've testified in the past, I have 9 not added it up, but I would say approximately 90 to 10 95 percent of the time when I'm testifying either in 11 deposition or trials is on behalf of plaintiffs. So 12 I don't have the exact number. 13 Q. And then if we look at Exhibit 2, your 14 list, which of those cases involved allegations 15 related to talc? 16 A. I don't know. 17 Q. Are there any? 18 A. I have testified in talc cases before, not 19 in cosmetic talc but primarily industrial talc, 20 typically involved in Vanderbilt. 21 Q. I didn't hear the last part. 22 A. Typically the Vanderbilt mines, or the 23 industrial talc mines. 24 Q. Okay. 25 A. But I don't know which ones those are.</p>	<p>1 generally? 2 A. That's what generally the thought process 3 is. Certainly if you look at Gouverneur talc, Nyal 4 has significant amounts of tremolite, anthophyllite, 5 getting away from the argument of asbestiform and 6 nonasbestiform, those can be routinely in the higher 7 percentages. But I guess it depends on the mine and 8 what's industrial versus what's not industrial. 9 And again, I may have to rethink that. 10 You have some industrial talc analysis for tremolite 11 and you have -- as compared to the cosmetic talc in 12 these documents, and the concentrations weren't that 13 much different for the tremolite and/or the 14 chrysotile found in at least the Vermont mines. 15 MR. CALFO: I'm going to move to strike 16 everything after the word and again, but that's 17 okay. 18 Q. (By Mr. Calfo) If you look at your 19 Exhibit 2, can you tell me which of the cases on 20 Exhibit 2 that you've testified in involve cosmetic 21 talcum powder products? 22 A. I think that we've already discussed that. 23 I don't recall ever testifying in a cosmetic talc 24 case other than a deposition I had when I was there 25 on behalf of a defendant, Scotts Turf Builder</p>
Page 31	Page 33
<p>1 Q. And you're a materials scientist? 2 A. Yes, sir. 3 Q. And as a materials scientist tell us what 4 your knowledge is in terms of the difference between 5 industrial talc and cosmetic talcum powder. 6 A. Typically what I've seen in the past, what 7 others have testified to, is the industrial talc 8 typically has a larger particle size, usually more 9 fibrous, and the prevailing thought at the time was 10 that it would have higher concentrations of 11 amphiboles. 12 That's not consistent with some of the J&amp;J 13 documents where they have looked at both industrial 14 versus cosmetic in some of the later reports. But 15 that's usually what is the thought process, is that 16 you're not grinding it down to the size necessary for 17 the size distribution in industrial talc used in 18 things like joint compound, sometimes gaskets, 19 sometimes paint, et cetera, where the cosmetic talc 20 is specifically designed to be applied to the human 21 body. 22 Q. And so just generally, let me just get 23 this generally. Generally industrial talc has larger 24 particle size, it's more fibrous, and it has higher 25 concentrations of amphiboles; is that right,</p>	<p>1 fertilizer, and I was just only produced for our 2 analysis of that. And Moshe Maimon from Levy, 3 Phillips was there on behalf of the plaintiff, and 4 since he was crossing me and after he got my opinions 5 about Scotts Turf Builder, an individual -- and I 6 can't think of his name -- for Colgate, started 7 questioning me about cosmetic talc, even though I 8 wasn't there to testify about cosmetic talc. And 9 that's the only time -- 10 Q. And what was the name of that case? 11 A. I don't recall. 12 Q. If you look at your list of Exhibit 2, 13 would that refresh your memory? 14 MR. PANATIER: I bet you, Alex -- I kind 15 of know about this. I'll look at the report. 16 If it was before 2013 or after -- if it was 17 before 2013, it's not on here. I think it was 18 either Kenzig, Fishbain, or Diaz filed in either 19 New Jersey or New York. 20 MR. CALFO: Okay. 21 MR. PANATIER: And it was Morgan Tovey who 22 was doing the questioning. 23 Q. (By Mr. Calfo) So let me just ask you 24 this, sir. How many cases have you testified in 25 where plaintiffs alleged they developed mesothelioma</p>

William E. Longo, Ph.D.

August 23, 2017

10 (Pages 34 to 37)

<p style="text-align: right;">Page 34</p> <p>1 as a result of their exposure to cosmetic talc 2 powder? 3 <b>A. Where actually I was hired as an expert in 4 that case?</b> 5 Q. Yes. 6 <b>A. These would be the first two. Well -- 7 both -- yeah, these would be the first two.</b> 8 Q. And is Herford, the one we're here for 9 today, is that the first case you've ever testified 10 against Johnson &amp; Johnson with respect to cosmetic 11 talc? 12 MR. SATTERLEY: Object to the form of the 13 question. 14 THE WITNESS: And just because I'm picky, 15 I don't testify for or against anybody. I just 16 provide the opinions of what I find and based 17 on -- 18 Q. (By Mr. Calfo) Let me rephrase it, then, 19 so you're comfortable with it. 20 <b>A. Hold on -- on my background, training, and 21 analysis. And as far as I know, this would be the 22 first time that Johnson &amp; Johnson is going to be 23 asking me questions about my work.</b> 24 Q. Okay. Do you know who other defendants 25 are in the Herford case other than Johnson &amp; Johnson?</p>	<p style="text-align: right;">Page 36</p> <p>1 <b>I can't talk about them.</b> 2 <b>But this would be the first deposition 3 specifically involving a matrix of talc looking for 4 and determining if there's any trace levels of 5 amphiboles -- detectable trace levels of amphiboles 6 in the samples we looked at versus other types of 7 samples where we have looked at different matrices 8 where we are determining if there's trace amounts of 9 amphiboles present.</b> 10 Q. And I know you don't want to talk about 11 your other matter, but when did you test the talcum 12 powder for that other product unrelated to Johnson &amp; 13 Johnson? 14 <b>A. I think there's been a couple, but it's 15 been within the last six months or seven months or 16 so.</b> 17 Q. Have you had your deposition taken in 18 either of those instances? 19 <b>A. No, sir. If I did, I could talk about it.</b> 20 Q. Can you tell us who the plaintiff lawyers 21 were? 22 <b>A. I prefer not to because I'm not an 23 attorney and I don't know what opens the door or not 24 opens the door. It's certainly nothing that I'm 25 relying on in this matter or that any results of</b></p>
<p style="text-align: right;">Page 35</p> <p>1 <b>A. I do not.</b> 2 Q. And let me just be clear. Is this 3 August 2nd, 2017, report that you prepared, which I 4 received two days ago, was that the first time you 5 tested a cosmetic talcum powder product for what 6 might be a potential asbestos contamination? 7 <b>A. This would be the first time that we 8 looked for -- to determine trace amounts of amphibole 9 tremolite in a cosmetic talc versus the hundred times 10 that we have looked for trace amounts of amphibole in 11 other products, primarily the source being the 12 chrysotile in the products.</b> 13 <b>So this type of analysis is not new to us. 14 It's just a change or difference in the matrix 15 material that we're looking in.</b> 16 Q. I understand. But the bottom line is this 17 was the first time you tested a cosmetic talcum 18 powder product for potential asbestos contamination; 19 right? 20 <b>A. You know, I can't say that without just 21 thinking we have looked at another type of cosmetic 22 talc, it's my understanding, that's not Johnson &amp; 23 Johnson. We've issued a report. But I'm not here 24 for that deposition, and my client or clients on a 25 couple of those are not here for their interests, so</b></p>	<p style="text-align: right;">Page 37</p> <p>1 <b>those studies affects any of my opinions in this 2 matter. And I prefer to keep it confidential since 3 they're not here, I don't know if they want their 4 names spoken or not about it, so I just can't talk 5 about it. But I don't want you to think that this is 6 the only time within the last year that we have 7 analyzed talc samples.</b> 8 MR. PANATIER: And just for the record, 9 I'll just place an objection that the question 10 violates the attorney work product privilege 11 because as far as I know, any of that work that 12 has been done has been done on a consulting 13 expert basis. 14 Q. (By Mr. Calfo) Well, let me move on. I 15 just want to -- let's keep moving, then. 16 Have you ever tested a cosmetic talcum 17 powder product for potential asbestos contamination 18 outside of litigation? 19 <b>A. I don't believe so.</b> 20 Q. Okay. Your report for this case, it's 21 entitled Analysis of Johnson &amp; Johnson Baby Powder 22 and Valeant Shower to Shower Talc Products for 23 Amphibole (Tremolite) Asbestos; is that right? 24 <b>A. That is correct.</b> 25 Q. And it's a 25-page report with</p>

William E. Longo, Ph.D.

August 23, 2017

11 (Pages 38 to 41)

Page 38	Page 40
<p>1 attachments, which I received on Monday. You have</p> <p>2 attachments to your report; right?</p> <p>3 <b>A. Yes, sir.</b></p> <p>4 Q. Okay. And when I looked at your report on</p> <p>5 Monday, I noted there were 679 pages in total, if you</p> <p>6 include the attachments. So you have a 25-page</p> <p>7 report with attachments that total about 679 pages;</p> <p>8 would that be fair, sir?</p> <p>9 <b>A. That's fair.</b></p> <p>10 Q. Now, here's my confusion, because I</p> <p>11 understand there are new documents that I don't have.</p> <p>12 Other than the 25-page report and the 679 pages total</p> <p>13 that we've received, what else do you have that you</p> <p>14 brought with you today?</p> <p>15 <b>A. I brought better quality photographs of</b></p> <p>16 <b>each of the specimen container samples that show top,</b></p> <p>17 <b>bottom -- six sides that are of higher quality than</b></p> <p>18 <b>the one page in the book.</b></p> <p>19 <b>And also I brought with me today a</b></p> <p>20 <b>particle size analysis that was run on our scanning</b></p> <p>21 <b>electron microscope to compare the size distributions</b></p> <p>22 <b>of the talc particles as well as any fibrous</b></p> <p>23 <b>particles in there as compared to what I would call a</b></p> <p>24 <b>control, which is essentially a current version of</b></p> <p>25 <b>Johnson's Baby Powder that was bought at a local</b></p>	<p>1 talk about this off the record.</p> <p>2 MR. PANATIER: Alex, this is Chris. To be</p> <p>3 clear, in Herford we also uploaded for you all</p> <p>4 of the Johnson &amp; Johnson documents that we gave</p> <p>5 to Dr. Longo. So you have that too.</p> <p>6 MR. CALFO: Fair enough. Fair enough.</p> <p>7 And I've always had those; right?</p> <p>8 MR. PANATIER: Right, of course.</p> <p>9 Q. (By Mr. Calfo) Okay. So I don't have the</p> <p>10 quality photos that you have brought with you today,</p> <p>11 sir, but just tell me generally what are they and how</p> <p>12 do they bear on your opinions that you're going to</p> <p>13 render in the Herford case?</p> <p>14 <b>A. They're a documentation of the containers</b></p> <p>15 <b>of talcum powder that we analyzed that shows top,</b></p> <p>16 <b>bottom, and all four sides for each of the 30</b></p> <p>17 <b>samples. And other than saying this is what we</b></p> <p>18 <b>analyzed and this is the container as received, it</b></p> <p>19 <b>doesn't really have any other impact on my testimony.</b></p> <p>20 MR. PANATIER: And just to be clear,</p> <p>21 because I think he asked for all the photos,</p> <p>22 there's some of the fiber photos as well that</p> <p>23 are high-res photos.</p> <p>24 THE WITNESS: Oh, correct. A couple of</p> <p>25 the samples we took -- because there was visible</p>
Page 39	Page 41
<p>1 <b>store here so that I could see how the size particles</b></p> <p>2 <b>compare from sample to sample to sample to sample as</b></p> <p>3 <b>well as what Johnson &amp; Johnson is selling today --</b></p> <p>4 <b>well, not today but within the last three or four</b></p> <p>5 <b>months.</b></p> <p>6 MR. SATTERLEY: And let me just -- the</p> <p>7 Lanzo file and folders and binders and things</p> <p>8 are here as well; he brought those as well.</p> <p>9 MR. CALFO: Okay. Like I said, I just</p> <p>10 don't know anything about Lanzo, so I'm sorry.</p> <p>11 Thanks for putting it on the record.</p> <p>12 MR. SATTERLEY: It was produced to</p> <p>13 Johnson &amp; Johnson last week, so I'm sorry that</p> <p>14 your client didn't share it with you. But if</p> <p>15 you got this information on Monday in the</p> <p>16 California case, I assume Johnson &amp; Johnson</p> <p>17 lawyers in Lanzo didn't share it with you on</p> <p>18 Friday.</p> <p>19 MR. CALFO: The only thing I got is -- is</p> <p>20 this Mr. Satterley?</p> <p>21 MR. SATTERLEY: It is.</p> <p>22 MR. CALFO: All I received on Monday was a</p> <p>23 25-page report with 679 pages. That's all I</p> <p>24 got. And I haven't spoken with anyone because I</p> <p>25 thought that was all we were doing. So we can</p>	<p>1 amphiboles in the SEM, we took some high</p> <p>2 resolution just to show the structure of</p> <p>3 actually at the high resolution because of this</p> <p>4 instrument, they're bundles versus just a fiber,</p> <p>5 which that's what it would look like mostly on</p> <p>6 TEM, just some representative fibers from a</p> <p>7 couple of the positive samples.</p> <p>8 Q. (By Mr. Calfo) All right. So bottom</p> <p>9 line, what did the photos show in supporting your</p> <p>10 opinions in this case?</p> <p>11 <b>A. Well, the few fibers --</b></p> <p>12 Q. Because I haven't seen them.</p> <p>13 <b>A. The few amphibole fibers that we</b></p> <p>14 <b>documented are consistent with what we found in the</b></p> <p>15 <b>transmission electron microscope as well as shows</b></p> <p>16 <b>more of the surface features of these fibers where</b></p> <p>17 <b>you can -- what look as a fiber showing bundles, and</b></p> <p>18 <b>bundles by definition are asbestiform, because you</b></p> <p>19 <b>cannot fracture a blocky material and get numerous</b></p> <p>20 <b>fibers stacked on top of each other, and it just</b></p> <p>21 <b>shows some of the asbestiform tremolite fibers that</b></p> <p>22 <b>were found in a couple of those samples.</b></p> <p>23 Q. How many photos do you have, sir, that you</p> <p>24 brought with you today?</p> <p>25 <b>A. I have five.</b></p>



William E. Longo, Ph.D.

August 23, 2017

28 (Pages 106 to 109)

Page 106	Page 108
<p>1     <b>A. No, sir. It was a different manufacturer.</b></p> <p>2     <b>However, the results are consistent with our results</b></p> <p>3     <b>and with others. I wouldn't expect the J&amp;J to behave</b></p> <p>4     <b>any differently with a similar cosmetic type talc</b></p> <p>5     <b>with contamination or trace levels of amphiboles as</b></p> <p>6     <b>was found in the samples they tested.</b></p> <p>7     Q. Can you cite for me any peer-reviewed</p> <p>8     epidemiology study that concludes that exposure to</p> <p>9     nonasbestiform amphibole minerals increases a</p> <p>10    person's risk of developing cancer?</p> <p>11    <b>A. I'm not aware of any epi studies in which</b></p> <p>12    <b>they exposed humans just to nonasbestiform, because</b></p> <p>13    <b>you typically will get some asbestiform along with</b></p> <p>14    <b>the nonasbestiform. I don't know how much was</b></p> <p>15    <b>published of miners. And I'm not an epidemiologist,</b></p> <p>16    <b>so that's not an area I testify about.</b></p> <p>17    And I don't testify about the hazards of</p> <p>18    asbestos exposure, so I'm not here to say that any of</p> <p>19    these results one way or the other are hazardous or</p> <p>20    nonhazardous.</p> <p>21    I'm just saying if you look at the data,</p> <p>22    you look at all the testing, you look at our testing,</p> <p>23    you look at others' testing, that there is an</p> <p>24    exposure level for the use of these cosmetic talcs</p> <p>25    that have amphibole contamination. Is that exposure</p>	<p>1     Q. Do you agree that tremolite can exist as</p> <p>2     nonasbestos?</p> <p>3     <b>A. I would agree that the tremolite can be</b></p> <p>4     <b>nonasbestiform so --</b></p> <p>5     Q. In other words there's --</p> <p>6     MR. SATTERLEY: He's not --</p> <p>7     MR. PANATIER: Hold on.</p> <p>8     THE WITNESS: So I can't agree that any</p> <p>9     mine or any area that has, quote,</p> <p>10    nonasbestiform, depending on who defines it,</p> <p>11    there's not going to be asbestiform, according</p> <p>12    to who defines it.</p> <p>13    You can look at some individuals'</p> <p>14    definition of asbestiform which essentially</p> <p>15    would eliminate all the exposures from Libby,</p> <p>16    Montana. Now, I'm not a medical doctor, but I</p> <p>17    don't think there's much disagreement that those</p> <p>18    tremolite, richterite, winchite exposures have</p> <p>19    been killing people in Libby, Montana, for a lot</p> <p>20    of years. But they may not meet the definition</p> <p>21    of some folks's description of what asbestiform</p> <p>22    is and nonasbestiform.</p> <p>23    MR. CALFO: I'm going to move to strike to</p> <p>24    the extent it's nonresponsive.</p> <p>25    Q. (By Mr. Calfo) Let me ask you this. Do</p>
Page 107	Page 109
<p>1     <b>level harmful and causes cancer or not? That's not</b></p> <p>2     <b>my area. Others can argue about that.</b></p> <p>3     Q. All right. Because you mentioned</p> <p>4     significant exposure. I didn't know what you meant</p> <p>5     by that. But that's not what you're going to be</p> <p>6     talking about; right?</p> <p>7     <b>A. Well, when I say significant exposure,</b></p> <p>8     <b>it's over background. And background levels for</b></p> <p>9     <b>tremolite anthophyllite are zero. So any detection</b></p> <p>10    <b>of airborne -- in my opinion, any detection of any</b></p> <p>11    <b>concentration of airborne tremolite anthophyllite,</b></p> <p>12    <b>unless you're living in Libby, Montana, when they're</b></p> <p>13    <b>working that mine, is going to be above background,</b></p> <p>14    <b>and that would be significant in my definition.</b></p> <p>15    Q. What in layman's term is tremolite?</p> <p>16    <b>A. In layman's term?</b></p> <p>17    Q. Yes.</p> <p>18    <b>A. It is an asbestos -- a regulated asbestos</b></p> <p>19    <b>fiber so that the exposure to tremolite-actinolite,</b></p> <p>20    <b>the tremolite series, is one of the types of</b></p> <p>21    <b>regulated asbestos fibers that OSHA, EPA, are</b></p> <p>22    <b>concerned about.</b></p> <p>23    I don't know what a layman's term really</p> <p>24    means. It's an asbestos -- regulated asbestos</p> <p>25    mineral.</p>	<p>1     you agree there's both asbestiform tremolite and also</p> <p>2     nonasbestiform tremolite?</p> <p>3     <b>A. I will agree.</b></p> <p>4     Q. And do you agree that nonasbestiform</p> <p>5     tremolite is common?</p> <p>6     <b>A. Again, what do you mean by common?</b></p> <p>7     Q. How about the word ubiquitous. Wouldn't</p> <p>8     you agree that nonasbestiform tremolite is</p> <p>9     ubiquitous?</p> <p>10    MR. PANATIER: I'll object to form.</p> <p>11    THE WITNESS: Well, that tells me that you</p> <p>12    can go out anywhere and find nonasbestiform</p> <p>13    tremolite in any sample. I don't know if you</p> <p>14    can do that.</p> <p>15    I will agree with you that tremolite</p> <p>16    contamination, you can find both asbestiform and</p> <p>17    nonasbestiform, cleavage fragments, true</p> <p>18    cleavage fragments, and typically -- that don't</p> <p>19    meet the definition of a regulated fiber.</p> <p>20    Certainly would agree with that.</p> <p>21    Q. (By Mr. Calfo) So let me ask it very</p> <p>22    easily. True or false: nonasbestiform tremolite is</p> <p>23    ubiquitous?</p> <p>24    MR. PANATIER: Same objection.</p> <p>25    THE WITNESS: I don't know how you</p>

William E. Longo, Ph.D.

August 23, 2017

29 (Pages 110 to 113)

<p style="text-align: right;">Page 110</p> <p>1 define --</p> <p>2 Q. (By Mr. Calfo) True or false?</p> <p>3 A. It is true if it is in an area that has</p> <p>4 tremolite contamination. That is false if you're</p> <p>5 looking at ubiquitous as that's everywhere.</p> <p>6 Q. True or false: nonasbestiform tremolite in</p> <p>7 the world, there's more of it than asbestiform</p> <p>8 tremolite?</p> <p>9 MR. PANATIER: Same objection.</p> <p>10 THE WITNESS: That, I can't answer true or</p> <p>11 false because I don't have that information to</p> <p>12 validate that.</p> <p>13 Q. (By Mr. Calfo) In your report you mention</p> <p>14 tremolite. What did you do to confirm that what you</p> <p>15 were seeing in your analysis was tremolite?</p> <p>16 A. It had at least a 5:1 aspect ratio, it had</p> <p>17 the chemistry by energy dispersive EDXA, and it also</p> <p>18 had the typical amphibole diffraction for the</p> <p>19 intercrystalline spacing of somewhere in the 5.2 to</p> <p>20 5.3, had the amphibole diffraction pattern, and</p> <p>21 therefore it was called either tremolite, either</p> <p>22 winchite, either richterite, I think we found</p> <p>23 actinolite in one sample.</p> <p>24 So we confirmed that as specified by the</p> <p>25 Environmental Protection Agency in their TEM</p>	<p style="text-align: right;">Page 112</p> <p>1 and the EPA believes is appropriate to count for</p> <p>2 asbestos.</p> <p>3 At the high magnifications, if it's a</p> <p>4 single fiber, at least somebody who is knowledgeable,</p> <p>5 that you cannot tell exactly if it's asbestiform or</p> <p>6 nonasbestiform.</p> <p>7 However, where you have a bundle of</p> <p>8 tremolite, where you have more than two or more</p> <p>9 parallel fibers that are touching, typically it's</p> <p>10 more than that, that is an asbestiform material,</p> <p>11 because you cannot have cleavage fragments that are</p> <p>12 breaking from rock and then stack up precisely in</p> <p>13 long fibers on top of each other. That doesn't</p> <p>14 happen.</p> <p>15 Q. Is there anything else you can tell us</p> <p>16 about what you did to determine whether the tremolite</p> <p>17 you were seeing is asbestiform versus nonasbestiform?</p> <p>18 A. I didn't call anything asbestiform or</p> <p>19 nonasbestiform, but I've just given you, if asked,</p> <p>20 that would be what I would state, by looking at the</p> <p>21 photographs and looking is it single fiber versus a</p> <p>22 bundle.</p> <p>23 I would be hesitant to call it asbestiform</p> <p>24 or nonasbestiform if it meets the definition of both</p> <p>25 the Environmental Protection Agency and/or OSHA as</p>
<p style="text-align: right;">Page 111</p> <p>1 analysis, as specified in OSHA 7402 analysis, as</p> <p>2 specified in some of the ISO protocols, so we</p> <p>3 confirmed it as specified by government regulations</p> <p>4 on what to call tremolite asbestos versus something</p> <p>5 else.</p> <p>6 Q. Okay. So is there anything else that you</p> <p>7 did to rule out that what you're seeing is tremolite</p> <p>8 as opposed to another mineral?</p> <p>9 A. Well, other than that it was fibrous, it</p> <p>10 had the appropriate diffraction pattern, it had the</p> <p>11 spot-on microchemistry of a fiber, no.</p> <p>12 Q. What did you do to determine whether the</p> <p>13 tremolite you claim you have seen is asbestiform</p> <p>14 versus nonasbestiform?</p> <p>15 A. Well, that's a good question. At the</p> <p>16 level of TEM, if you have that it meets the</p> <p>17 definition, at least by EPA, that it has a 5:1 aspect</p> <p>18 ratio with parallel sides and it's a single fiber,</p> <p>19 you cannot determine if it's asbestiform or</p> <p>20 nonasbestiform.</p> <p>21 What you can say is that it meets the</p> <p>22 federal regulation or definition by the Environmental</p> <p>23 Protection Agency or it is a single fiber that's</p> <p>24 greater than 5 micrometers and the width of it is</p> <p>25 greater than .2, it meets the definition of what OSHA</p>	<p style="text-align: right;">Page 113</p> <p>1 what's defined as a fiber that they regulate.</p> <p>2 Q. Okay. So let me -- I'm just trying to</p> <p>3 figure out where I'm at with this.</p> <p>4 So you went to the level of the TEM and</p> <p>5 you looked at photos and you determined that there's</p> <p>6 a single fiber versus bundle. Is there anything</p> <p>7 else -- and it's not what you know. I just want to</p> <p>8 know what else you did.</p> <p>9 MR. PANATIER: I'll just object to asked</p> <p>10 and answered.</p> <p>11 THE WITNESS: I mean, we've already gone</p> <p>12 over how we identify tremolite versus actinolite</p> <p>13 versus talc fibers. But for me to sit here and</p> <p>14 say this is an asbestiform and this is</p> <p>15 nonasbestiform, using a TEM, you can't say a</p> <p>16 single fiber one way or the other, but you can</p> <p>17 on bundles.</p> <p>18 Q. (By Mr. Calfo) Do you agree that</p> <p>19 nonasbestiform amphiboles have properties that are</p> <p>20 very similar to their asbestos counterparts?</p> <p>21 A. They all have the same chemistry; they all</p> <p>22 have the same diffraction patterns. The</p> <p>23 nonasbestiforms will be shards with nonparallel</p> <p>24 sides, typically. But the properties --</p> <p>25 analytically, they would look the same.</p>



William E. Longo, Ph.D.

August 23, 2017


30 (Pages 114 to 117)

<p style="text-align: right;">Page 114</p> <p>1 Q. Well, you're familiar with the Yamate 2 method; right? 3 <b>A. I am.</b> 4 Q. And you agree the Yamate method is 5 reliable and authoritative, don't you? 6 <b>A. For the time, absolutely.</b> 7 Q. And do you know the three levels of 8 analysis under the Yamate method? 9 <b>A. I do. George Yamate used to work for me.</b> 10 Q. Okay. And did you use the Yamate method 11 when you did your analysis? 12 <b>A. We used the AHERA sizing method and what</b> 13 <b>AHERA states to confirm. If you want to look at the</b> 14 <b>Yamate method on what is the appropriate method for</b> 15 <b>this analysis, it would be a Level II. Of course,</b> 16 <b>what you're getting at is the zone axis requirement</b> 17 <b>for amphiboles in Level III.</b> 18 <b>Because I have had George Yamate work for</b> 19 <b>me, George and I had discussions about the zone axis.</b> 20 <b>And at the time that the Level III was put out, the</b> 21 <b>EDXA or how we used to call the EDS detectors weren't</b> 22 <b>nearly as sensitive, there nearly wasn't enough</b> 23 <b>round-robins, they didn't have the controls and</b> 24 <b>standards, that's why he stated that.</b> 25 <b>But if George Yamate was alive today, he</b></p>	<p style="text-align: right;">Page 116</p> <p>1 Go ahead. 2 Q. (By Mr. Calfo) Okay. Well, let me ask 3 you. Did you set out to follow the Yamate method? 4 <b>A. We set out to follow the AHERA counting</b> 5 <b>rules, the identification as specified in AHERA, and</b> 6 <b>that coincides with the Yamate -- or the EPA</b> 7 <b>Level II.</b> 8 <b>We did not set out to use the zone axis</b> 9 <b>diffraction requirement in the Level III for the</b> 10 <b>reasons I've already stated.</b> 11 <b>So when you say you did not follow the</b> 12 <b>Yamate method, the Yamate method and the AHERA method</b> 13 <b>are literally -- the Yamate method Level II is</b> 14 <b>literally identical to the AHERA method.</b> 15 <b>So we reference the AHERA method in the</b> 16 <b>report. We did not reference the Yamate Level II, I</b> 17 <b>don't believe, but they're literally the same.</b> 18 Q. Can we agree that you did not, either way, 19 conduct a detailed zone axis SAED analysis? 20 <b>A. That's correct; we did not.</b> 21 Q. All right. Now, let me ask you a few 22 questions about your report. 23 At page 3 of 25, you state 17 samples were 24 found to contain detectable amounts of amphibole 25 asbestos --</p>
<p style="text-align: right;">Page 115</p> <p>1 <b>could testify that with the equipment we have today,</b> 2 <b>we don't need zone axis diffraction to identify</b> 3 <b>tremolite, anthophyllite, actinolite, richterite,</b> 4 <b>winchite. And that's why it's not required for any</b> 5 <b>of the current methods both by EPA as well -- people</b> 6 <b>are more than welcome to do it, but it's not needed.</b> 7 Q. That's great. Let me just ask you this, 8 very simple question. 9 Is it fair to say that your analysis did 10 not strictly follow the Yamate method? True or 11 false? 12 MR. PANATIER: I'm going to object to 13 form. 14 THE WITNESS: That's too broad for me to 15 say true or false. It certainly followed the 16 Level II. And, no, we did not do zone axis 17 diffraction patterns because of the reasons I've 18 already stated. 19 Q. (By Mr. Calfo) Okay. So let me just get 20 this. You did not specifically follow the Yamate 21 method, and you did not conduct a detailed zone axis 22 SAED analysis; right? 23 MR. PANATIER: I'm just going to object 24 that that assumes that he set out to follow 25 Yamate in the first place.</p>	<p style="text-align: right;">Page 117</p> <p>1 <b>A. Correct.</b> 2 Q. -- tremolite series and 3 ferro-anthophyllite. 4 Do you see that? 5 <b>A. Yes.</b> 6 Q. How do you define amphibole asbestos? 7 <b>A. That it's any of the regulated amphiboles</b> 8 <b>that are asbestos as well as some of the</b> 9 <b>potassium-rich and sodium-rich tremolite fibers that</b> 10 <b>EPA is now calling winchite and richterite.</b> 11 <b>I know technically that's not a regulated</b> 12 <b>asbestos fiber from the winchite -- tremolite to</b> 13 <b>winchite and richterite, but I don't believe there's</b> 14 <b>any argument that that is problematic and of course</b> 15 <b>is of great concern to EPA and its Superfund site.</b> 16 <b>So I'm calling them amphibole asbestos, and these are</b> 17 <b>the amphiboles that I found.</b> 18 Q. All right. And just in a nutshell, what 19 is it that you rely on for your definition of 20 amphibole asbestos? 21 <b>A. Definition is that they're regulated and</b> 22 <b>they're called asbestos and that these would all have</b> 23 <b>been called asbestos by any of the protocols that we</b> 24 <b>use when we're dealing with what is asbestos and what</b> 25 <b>is not asbestos when we do analysis.</b></p>

William E. Longo, Ph.D.

August 23, 2017

61 (Pages 238 to 241)

<p style="text-align: right;">Page 238</p> <p>1 (Deposition concluded at 4:41 p.m.)                  2 (Pursuant to Rule 30(e) of the Federal                  3 Rules of Civil Procedure and/or OCGA 9-11-30(e),                  4 signature of the witness has been reserved.)                  5 (Original transcript sent to Mr. Calfo.)                  6                  7                  8                  9                  10                  11                  12                  13                  14                  15                  16                  17                  18                  19                  20                  21                  22                  23                  24                  25</p>	<p style="text-align: right;">Page 240</p> <p>1 COURT REPORTER DISCLOSURE                  2                  3 Pursuant to Article 10.B. of the Rules and                  4 Regulations of the Board of Court Reporting of the                  5 Judicial Council of Georgia which states: "Each court                  6 reporter shall tender a disclosure form at the time                  7 of the taking of the deposition stating the                  8 arrangements made for the reporting services of the                  9 certified court reporter, by the certified court                  10 reporter, the court reporter's employer, or the                  11 referral source for the deposition, with any party to                  12 the litigation, counsel to the parties or other                  13 entity. Such form shall be attached to the                  14 deposition transcript," I make the following                  15 disclosure:                  16                  17 I am a Georgia Certified Court Reporter. I am                  18 here as a representative of Atlanta Reporters, Inc.                  19 Atlanta Reporters was contacted by King &amp; Spalding,                  20 LLP, to provide court reporting services for the                  21 deposition. Atlanta Reporters will not be taking                  22 this deposition under any contract that is prohibited                  23 by OCGA 15-14-37(a) and (b).                  24                  25 Atlanta Reporters has no contract/agreement to                  provide reporting services with any party to the                  case, any counsel in the case, or any reporter or                  reporting agency from whom a referral might have been                  made to cover this deposition. Atlanta Reporters                  will charge its usual and customary rates to all                  parties in the case, and a financial discount will                  not be given to any party to this litigation.                  _____                  DEBRA R. LUTHER, B-881                  Georgia Certified Court Reporter</p>
<p style="text-align: right;">Page 239</p> <p>1 CERTIFICATE                  2                  3 STATE OF GEORGIA:                  4 COUNTY OF GWINNETT:                  5                  6 I hereby certify that the foregoing                  7 transcript was taken down, as stated in the                  8 caption, and the questions and answers thereto                  9 were reduced to typewriting under my direction;                  10 that the foregoing pages 1 through 238 represent                  11 a true, complete, and correct transcript of the                  12 evidence given upon said hearing, and I further                  13 certify that I am not of kin or counsel to the                  14 parties in the case; am not in the regular                  15 employ of counsel for any of said parties; nor                  16 am I in anywise interested in the result of said                  17 case.                  18 This, the 29th day of August 2017.                  19                  20                   21 DEBRA R. LUTHER, B-881                  22 Georgia Certified Court Reporter                  23                  24                  25</p>	<p style="text-align: right;">Page 241</p> <p>1 DEPOSITION OF WILLIAM E. LONGO, PhD /DRL                  2 I do hereby certify that I have read all                  3 questions propounded to me and all answers given by                  4 me on the 23rd day of August 2017, taken before                  5 Debra R. Luther, and that:                  6                  7 _____ 1) There are no changes noted.                  8 _____ 2) The following changes are noted:                  9 Pursuant to Rule 30(e) of the Federal Rules of                  10 Civil Procedure and/or the Official Code of Georgia                  11 Annotated 9-11-30(e), both of which read in part:                  12 Any changes in form or substance which you desire to                  13 make shall be entered upon the deposition...with a                  14 statement of the reasons given...for making them.                  15 Accordingly, to assist you in effecting corrections,                  16 please use the form below:                  17 Page No. ____ Line No. ____ should read: _____                  18 _____                  19 Page No. ____ Line No. ____ should read: _____                  20 _____                  21 Page No. ____ Line No. ____ should read: _____                  22 _____                  23 Page No. ____ Line No. ____ should read: _____                  24 _____                  25 Page No. ____ Line No. ____ should read: _____                  26 _____</p>